



ELECTRICAL CURRENTS

Newsletter from the Office of the Chief Electrical Inspector

Ron Fuller, Chief Electrical Inspector

Vol. 7 No. 5

May 2004

● Stakeholder Panel Meets With Inspection Field Supervisors And L&I Managers

Our thanks to panelists (from the left): Glen Washam, Sun River Electric, NECA; Jim Eylander, Eylander Electric, IEC; Joe Devish, Chair of the Electrical Board, NECA; Robert Perasso, Rob's Electrical Inc., IEC; Jessica Ward, Associated Builders and Contractors, Inc.; Brett Lytle, Independent Journeyman; and (not pictured) Tom Prince, McKinstry Co., IBEW.



On April 21st, Labor and Industries Electrical Inspection Field Supervisors, Regional Compliance Managers and Administrators, and central office electrical program staff members received positive comments, constructive criticism, and recommendations from the panelists on the direction the electrical program should be moving in the future. Don Mitchell from American Power Conversion Corporation (APC) donated facilities for the meeting in the KOMO-Fischer Building in Seattle. Attendees had a chance to see a working model of APC's innovative network-critical power systems.

● Montana And Washington Agree To Share Electrical Exam Development

The Montana State Electrical Board has agreed to join us in sharing the database that contains the pool of electrical code, theory, and load calculation questions used to create electrician and administrator certification examinations. Both states will contribute to the development of new questions and the maintenance of existing questions, and both will support their own section of the database that contains state-specific law and administrative rules questions. We will be pursuing the future involvement of other states in our reciprocal licensing and certification agreements in this exam development project.

● Department Will Begin Approving Continuing Education Courses And Instructors

All the proposals the department received for contracting course and instructor approval involved substantially higher fees for course providers, approximately 2-3 times those currently in rule. The Electrical Board found the proposed increases in fees to be unacceptable. In their April 29th meeting, they delegated authority to the department to approve courses and instructors separately. The existing fee in WAC 296-46B-910(4) for initial approval and renewal will be applied to course applications and instructor applications. The criteria for course and instructor approval that the department will use are in the proposed rules (WAC 296-46B-970) on our Web site at:

<http://www.lni.wa.gov/TradesLicensing/Electrical/Whatsnew/> under the 2003-2004 Electrical Rule (WAC) Development link.

● Modifications To NEC Article 700 Emergency Systems

There are a large number of "energy saving" projects taking place in commercial buildings across the state. Typically, these projects will include new generators, UPS systems, and designs for integration of existing emergency systems into the modifications. The installation of these new back-up power systems often affects existing life safety circuits and/or loads and can create serious safety issues. Since emergency systems are critical to personnel safety, once a modification is made to existing life safety branch circuits and/or loads, the emergency system is required to meet current NEC Article 700 design requirements.

When life safety loads are installed on a generator system, they must be installed on a separate automatic transfer switch and panelboard per NEC 700.9. If battery back-up luminaires are being used for egress or

exit lighting, they must be in compliance with the requirements of NEC 700.12(E) for unit equipment. All battery back-up equipment must be connected to the same branch circuit that supplies the normal lighting for the area and connected ahead of any switches.

● Avoid Citations By Providing Supervision And Reporting Training Hours Legally

A specialty electrical contractor's scope of work determines the type of specialty electrician they can employ and dispatch without supervision. If a specialty electrician's certification type is not the same as the contractor's license type, then the individual must have a training certificate and be working under proper supervision. There are three exceptions: **a)** a journeyman (01) electrician can work (as a specialty electrician) for any type of specialty contractor or, **b)** a residential (02) specialty electrician can work for a (07B) residential maintenance contractor and do work within the contractor's scope without supervision or, **c)** an electrician in a specialty that has a "sub-specialty" detailed in WAC 269-46B, Table 920-1 may work for a sub-specialty contractor within the scope of the more limited sub-specialty.

The following is an updated guide, originally printed in the January 2002 edition of this newsletter, to help contractors, electricians, and trainees provide proper personnel and supervision on their jobsites, report training hours in the appropriate categories, and avoid citations for working illegally.

TYPE OF WORK PERFORMED (see scopes in WAC 296-46B-920)	Contractor must be:	Category of Hours Reported	Trainee must be supervised by:
(01) General Electrical: (Including All Types Of Specialty Electrical Work)	01	New Commercial/Industrial (01) Report hours in the specific specialty type(s) of work performed.	01 01 or Appropriate Specialty
(02) Residential Construction	02	Residential (02)	01, 02
(03) Pump and Irrigation	03	Pump and Irrigation (03)	01, 03
(03A) Domestic Well	03 or 03A	Domestic Well (03A)	01, 03, 03A
(04) Sign and Outline Lighting	04	Sign (04)	01, 04
(06) Limited Energy Systems	06	Limited Energy Systems (06)	01, 06
(06A) HVAC/R	06A	HVAC/R (06A)	01, 06A
(06B) HVAC/R-restricted	06A or 06B	HVAC/R-restricted (06B)	01, 06A, 06B
(07) Non-Residential Maintenance	07	Non-Residential Maintenance (07)	01, 07
(07C) Restricted Non-Resid. Maint.	07 or 07C	Restricted Non-Resid. Maintenance (07C)	01, 07, 07C
(07B) Residential Maintenance	02, 07, 07C, or 07B	Residential Maintenance (07B)	01, 02, 07, 07C, 07B
(07A) Non-Resid. Lighting Maint.	07, 07C, or 07A	Non-Resid. Lighting Maintenance (07A)	01, 07, 07C, 07A
(07D) Appliance Repair	07, 07E, or 07D	Appliance Repair (07D)	01, 07, 07E, 07D
(07E) Equipment Repair	07 or 07E	Equipment Repair (07E)	01, 07, 07E
(09) Telecommunications	09	None—WAC 296-46B-945(13)(c)	N/A
(10) Door, Gate, and Similar Systems	10	Door, Gate, and Similar Systems (10)	01, 10

● Electrical Question of the Month

This Month's Question: A 200-amp panelboard inside a single-family dwelling unit is supplied by a feeder from a 200-amp pedestal service located 75 feet away from the building. The required building disconnecting means must be located... **A)** anywhere inside the building except a bathroom, shower room, or clothes closet, **B)** nearest the point of entrance of the conductors into the building, **C)** so that the feeder raceway extends no more than 15 feet inside the building, **D)** in the service pedestal.

Last Month's Question: A(n) _____ branch circuit must supply central heating equipment, other than fixed electrical space heating equipment. **A)** Multi-wire, **B)** Individual, **C)** Multi-purpose, **D)** Small Appliance. The answer is: **B)** [NEC 422.12].